



CST-201 CIP.ST25  
SEQUENCE LISTING

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TAN, Yi

<120> IMMUNOAFFINITY ISOLATION OF MODIFIED PEPTIDES FROM COMPLEX MIXTURES

<130> CST-201 CIP

<140> 10/777,893

<141> 2004-02-12.

<150> US 09/148,712

<151> 1998-09-04

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<150> US 09/535,364

<151> 2000-03-24

<150> US 60/299,893

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<151> 2001-11-08

<160> 163

<170> PatentIn version 3.1

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<211> 19

<212> PRT

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<220>

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<220>

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<222> (10)..(10)

<223> PHOSPHORYLATION; tyrosine at position 10 is phosphorylated

<400> 1

Lys Ile Glu Lys Ile Gly Glu Gly Thr Tyr Gly Val Val Tyr Lys Gly  
1 5 10 15

Arg His Lys

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<400> 2

Lys Ile Glu Lys Ile Gly Glu Gly Thr Tyr Gly Val Val Tyr Lys Gly  
 1 5 10 15

Arg His Lys

<210> 3  
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<220>  
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 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 3

Arg Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg Gln Gly Ala Lys Cys  
 1 5 10 15

<210> 4  
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<220>  
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<400> 4

Arg Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg Gln Gly Ala Lys Cys  
 1 5 10 15

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<220>  
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 <222> (7)..(7)  
 <223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 5

Leu Gln Glu Arg Arg Lys Tyr Leu Lys His Arg Cys  
 1 5 10

<210> 6  
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<220>  
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<400> 6

Leu Gln Glu Arg Arg Lys Tyr Leu Lys His Arg Cys  
 1 5 10

<210> 7  
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<220>  
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<220>  
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 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 7

Arg Gln Gly Lys Asp Tyr Val Gly Ala Ile Pro Val Asp Cys  
 1 5 10

<210> 8  
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<220>  
 <223> Synthetic Peptide

<400> 8

Arg Gln Gly Lys Asp Tyr Val Gly Ala Ile Pro Val Asp Cys  
 1 5 10

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<220>  
 <223> Synthetic Peptide

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 9

Gly Lys Asp Gly Arg Gly Tyr Val Pro Ala Thr Cys  
 1 5 10

<210> 10  
 <211> 12  
 <212> PRT  
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<220>  
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<400> 10

Gly Lys Asp Gly Arg Gly Tyr Val Pro Ala Thr Cys  
 1 5 10

<210> 11  
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<220>  
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<220>  
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 <222> (8)..(8)  
 <223> PHOSPHORYLATION; threonine at position 8 is phosphorylated

<400> 11

Asp Thr Gln Ile Lys Arg Asn Thr Phe Val Gly Thr Pro Phe Cys  
 1 5 10 15

<210> 12  
 <211> 15  
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<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<400> 12

Asp	Thr	Gln	Ile	Lys	Arg	Asn	Thr	Phe	Val	Gly	Thr	Pro	Phe	Cys
1				5					10					15

<210> 13

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>

<221> MOD\_RES

<222> (13)..(13)

<223> PHOSPHORYLATION; threonine at position 13 is phosphorylated

<400> 13

Cys	Lys	Glu	Gly	Leu	Gly	Pro	Gly	Asp	Thr	Thr	Ser	Thr	Phe
1				5					10				

<210> 14

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<400> 14

Cys	Lys	Glu	Gly	Leu	Gly	Pro	Gly	Asp	Thr	Thr	Ser	Thr	Phe
1				5					10				

<210> 15

<211> 6

<212> PRT

<213> Homo sapiens

<220>

<221> MISC\_FEATURE

<222> (1)..(6)

<223> At positions 1 and 3, X = K or R; at positions 2 and 4-5, X = any amino acid; at position 6, X = phosphothreonine or phosphoserine

<400> 15

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Xaa Xaa Xaa Xaa Xaa Xaa  
1 5

<210> 16  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Peptide

<220>  
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<222> (9)..(9)  
<223> PHOSPHORYLATION; serine at position 9 is phosphorylated

<400> 16

Cys Ser Pro Arg Arg Arg Ala Ala Ser Met Asp Asn Asn Ser Lys Phe  
1 5 10 15

Ala

<210> 17  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Peptide

<400> 17

Cys Ser Pro Arg Arg Arg Ala Ala Ser Met Asp Asn Asn Ser Lys Phe  
1 5 10 15

Ala

<210> 18  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Peptide

<220>  
<221> MOD\_RES  
<222> (8)..(8)  
<223> PHOSPHORYLATION; threonine at position 8 is phosphorylated

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<400> 18

Cys Leu Lys Asp Arg Gln Gly Thr His Lys Asp Ala Glu Ile Leu  
1 5 10 15

<210> 19

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>

<221> MOD\_RES

<222> (7)..(7)

<223> PHOSPHORYLATION; threonine at position 7 is phosphorylated

<400> 19

Ser Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Glu Ile  
1 5 10

<210> 20

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>

<221> MOD\_RES

<222> (5)..(5)

<223> PHOSPHORYLATION; threonine at position 5 is phosphorylated

<400> 20

Cys Arg Ser Leu Thr Gly Lys Pro Lys Leu Phe Ile Ile Gln Ala  
1 5 10 15

<210> 21

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<400> 21

Cys Leu Lys Asp Arg Gln Gly Thr His Lys Asp Ala Glu Ile Leu  
1 5 10 15

<210> 22  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<400> 22

Ser Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Glu Ile  
 1 5 10

<210> 23  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<400> 23

Cys Arg Ser Leu Thr Gly Lys Pro Lys Leu Phe Ile Ile Gln Ala  
 1 5 10 15

<210> 24  
 <211> 6  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> PHOSPHORYLATION; serine at position 4 is phosphorylated

<220>  
 <221> MISC\_FEATURE  
 <222> (1)..(5)  
 <223> At position 1, X = K or R; at positions 2-3 and 5, X = any amino acid

<400> 24

Xaa Xaa Xaa Ser Xaa Pro  
 1 5

<210> 25  
 <211> 17  
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<220>

<223> Synthetic Peptide

<220>

<221> MOD\_RES

<222> (9)..(9)

<223> PHOSPHORYLATION; serine at position 9 is phosphorylated

<400> 25

Cys Ser Pro Arg Arg Arg Ala Ala Ser Met Asp Asn Asn Ser Lys Phe  
1 5 10 15

Ala

<210> 26

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<400> 26

Cys Ser Pro Arg Arg Arg Ala Ala Ser Met Asp Asn Asn Ser Lys Phe  
1 5 10 15

Ala

<210> 27

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>

<221> MOD\_RES

<222> (7)..(7)

<223> PHOSPHORYLATION; serine at position 7 is phosphorylated

<400> 27

Phe Arg Gly Arg Ser Arg Ser Ala Pro Pro Asn Leu Trp Ala Cys  
1 5 10 15

<210> 28

<211> 14

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<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Peptide

<220>  
<221> MOD\_RES  
<222> (7)..(7)  
<223> PHOSPHORYLATION; threonine at position 7 is phosphorylated

<400> 28

Ser Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Glu Ile  
1 5 10

<210> 29  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Peptide

<220>  
<221> MOD\_RES  
<222> (7)..(7)  
<223> PHOSPHORYLATION; serine at position 7 is phosphorylated

<400> 29

Thr Arg Ser Arg His Ser Ser Tyr Pro Ala Gly Thr Glu Glu Cys  
1 5 10 15

<210> 30  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Peptide

<220>  
<221> MOD\_RES  
<222> (9)..(9)  
<223> PHOSPHORYLATION; serine at position 9 is phosphorylated

<400> 30

Cys Ala Glu Tyr Leu Arg Ser Ile Ser Leu Pro Val Pro Val Leu  
1 5 10 15

<210> 31

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<211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 31

Leu Gln Glu Arg Arg Lys Tyr Leu Lys His Arg Cys  
 1 5 10

<210> 32  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<400> 32

Ser Arg Pro Arg Ser Cys Thr Trp Pro Leu Pro Arg Glu Ile  
 1 5 10

<210> 33  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<400> 33

Thr Arg Ser Arg His Ser Ser Tyr Pro Ala Gly Thr Glu Glu Cys  
 1 5 10 15

<210> 34  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<400> 34

Cys Ala Glu Tyr Leu Arg Ser Ile Ser Leu Pro Val Pro Val Leu  
 1 5 10 15

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<210> 35  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<220>  
 <221> MOD\_RES  
 <222> (9)..(9)  
 <223> PHOSPHORYLATION; serine at position 9 is phosphorylated

<400> 35

Met Ser Gly Arg Pro Arg Thr Thr Ser Phe Ala Glu Ser Cys  
 1 5 10

<210> 36  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 36

Arg Gln Gly Lys Asp Tyr Val Gly Ala Ile Pro Val Asp Cys  
 1 5 10

<210> 37  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Peptide

<400> 37

Arg Gln Gly Lys Asp Tyr Val Gly Ala Ile Pro Val Asp Cys  
 1 5 10

<210> 38  
 <211> 6  
 <212> PRT

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<213> Homo sapiens

<220>

<221> MISC\_FEATURE

<222> (1)..(6)

<223> At positions 1, 2, and 6, X = R or K; at position 3, X= any amino acid; at position 4, X = S or T; at position 5, X = any hydrophobic amino acid.

<400> 38

Xaa Xaa Xaa Xaa Xaa Xaa  
1 5

<210> 39

<211> 5

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> PHOSPHORYLATION: serine at position 3 is phosphorylated

<220>

<221> MISC\_FEATURE

<222> (1)..(5)

<223> At positions 1 and 5, X= R or K; at position 2, X = any amino acid; at position 4, X = any hydrophobic amino acid.

<400> 39

Xaa Xaa Ser Xaa Xaa  
1 5

<210> 40

<211> 5

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> PHOSPHORYLATION; serine at position 1 is phosphorylated

<220>

<221> MISC\_FEATURE

<222> (3)..(5)

<223> At positions 3 and 5, X = R or K; at position 4, X = any amino acid

<400> 40

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Ser Leu Xaa Xaa Xaa  
1 5

<210> 41  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 41

Gln Ile Ala Lys Arg Arg Arg Leu Ser Ser Leu Arg Ala Ser Thr Ser  
1 5 10 15

Lys Ser Glu

<210> 42  
<211> 6  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (5)..(5)  
<223> PHOSPHORYLATION; at position 5, X = phosphoserine or phosphothreo  
nine

<220>  
<221> MISC\_FEATURE  
<222> (2)..(6)  
<223> At positions 2 and 3, X = any amino acid; at position 6, X = F or  
Y.

<400> 42

Phe Xaa Xaa Phe Xaa Xaa  
1 5

<210> 43  
<211> 10  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (7)..(7)  
<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 43

Ile Ile Glu Asp Asn Glu Tyr Thr Ala Arg

CST-201 CIP.ST25  
10

1 5  
<210> 44  
<211> 10  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (7)..(7)  
<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 44

Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg  
1 5 10

<210> 45  
<211> 16  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (10)..(10)  
<223> PHOSPHORYLATION; tyrosine at position 10 is phosphorylated

<400> 45

Val Leu Glu Asp Asp Pro Glu Ala Thr Tyr Thr Thr Ser Gly Gly Lys  
1 5 10 15

<210> 46  
<211> 13  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (10)..(10)  
<223> PHOSPHORYLATION; tyrosine at position 10 is phosphorylated

<400> 46

Val Leu Glu Asp Asp Pro Glu Ala Ala Tyr Thr Thr Arg  
1 5 10

<210> 47  
<211> 16  
<212> PRT  
<213> Homo sapiens

CST-201 CIP.ST25

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 47

Val Tyr Ile Asp Pro Phe Thr Tyr Glu Asp Pro Asn Glu Ala Val Arg  
 1 5 10 15

<210> 48  
 <211> 28  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (12)..(12)  
 <223> PHOSPHORYLATION; tyrosine at position 12 is phosphorylated

<400> 48

Thr His Ala Val Ser Val Ser Glu Thr Asp Asp Tyr Ala Glu Ile Ile  
 1 5 10 15

Asp Glu Glu Asp Thr Tyr Thr Met Pro Ser Thr Arg  
 20 25

<210> 49  
 <211> 9  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (7)..(8)  
 <223> PHOSPHORYLATION; tyrosines at positions 7 and 8 are phosphorylated

<400> 49

Tyr Met Glu Asp Ser Thr Tyr Tyr Lys  
 1 5

<210> 50  
 <211> 33  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (20)..(20)



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<223> PHOSPHORYLATION; tyrosine at position 20 is phosphorylated

<400> 50

Gly Ser Ile Asp Arg Glu Asp Gly Ser Phe Gln Gly Pro Thr Gly Asn  
1 5 10 15

Gln His Ile Tyr Gln Pro Val Gly Lys Pro Asp Pro Ala Ala Pro Pro  
20 25 30

Lys

<210> 51

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (7)..(7)

<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 51

Ile Ile Glu Asp Asn Glu Tyr Thr Ala Arg  
1 5 10

<210> 52

<211> 13

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (7)..(7)

<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 52

Gln Glu Asp Gly Gly Val Tyr Ser Ser Ser Gly Leu Lys  
1 5 10

<210> 53

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (7)..(7)

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<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 53

Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg  
1 5 10

<210> 54

<211> 11

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (6)..(6)

<223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 54

Ile Gly Glu Gly Thr Tyr Gly Val Val Tyr Lys  
1 5 10

<210> 55

<211> 8

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> PHOSPHORYLATION; tyrosine at position 4 is phosphorylated

<400> 55

Ile Tyr Gln Tyr Ile Gln Ser Arg  
1 5

<210> 56

<211> 17

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> PHOSPHORYLATION; tyrosine at position 1 is phosphorylated

<400> 56

Tyr Glu Val Leu Lys Ile Ile Gly Lys Gly Ser Phe Gly Gln Val Ala  
1 5 10 15

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Arg

<210> 57  
 <211> 11  
 <212> PRT  
 <213> Homo sapiens  
 <220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 57

Gly	Glu	Pro	Asn	Val	Ser	Tyr	Ile	Cys	Ser	Arg
1				5						10

<210> 58  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens  
 <220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 58

Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
1				5					10

<210> 59  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens  
 <220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 59

Thr	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
1				5					10

<210> 60  
 <211> 19  
 <212> PRT

## CST-201 CIP.ST25

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (15)..(15)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 15 is phosphorylated

&lt;400&gt; 60

Val	Ala	Asp	Pro	Asp	His	Asp	His	Thr	Gly	Phe	Leu	Thr	Glu	Tyr	Val
1				5					10					15	

Ala Thr Arg

&lt;210&gt; 61

&lt;211&gt; 13

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (9)..(9)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

&lt;400&gt; 61

His	Thr	Asp	Asp	Glu	Met	Thr	Gly	Tyr	Val	Ala	Thr	Arg
1				5						10		

&lt;210&gt; 62

&lt;211&gt; 22

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (18)..(18)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 18 is phosphorylated

&lt;400&gt; 62

Leu	Cys	Asp	Phe	Gly	Ser	Ala	Ser	His	Val	Ala	Asp	Asn	Asp	Ile	Thr
1				5						10				15	

Pro	Tyr	Leu	Val	Ser	Arg
			20		

&lt;210&gt; 63

&lt;211&gt; 24

&lt;212&gt; PRT

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<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (11)..(11)

<223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 63

Leu Pro Asp Phe Gln Asp Ser Ile Phe Glu Tyr Phe Asn Thr Ala Pro  
1 5 10 15

Leu Ala His Asp Leu Thr Phe Arg  
20

<210> 64

<211> 20

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (14)..(14)

<223> PHOSPHORYLATION; tyrosine at position 14 is phosphorylated

<400> 64

Thr Leu Glu Pro Val Lys Pro Pro Thr Val Pro Asn Asp Tyr Met Thr  
1 5 10 15

Ser Pro Ala Arg  
20

<210> 65

<211> 14

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (9)..(9)

<223> PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

<400> 65

Tyr Val Asp Ser Glu Gly His Leu Tyr Thr Val Pro Ile Arg  
1 5 10

<210> 66

<211> 25

<212> PRT

CST-201 CIP.ST25

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (5)..(5)

<223> PHOSPHORYLATION; tyrosine at position 5 is phosphorylated

<400> 66

Ala Ser Gln Asp Tyr Asp Gln Leu Pro Ser Ser Ser Asp Gly Ser Gln  
1 5 10 15

Ala Pro Ala Arg Pro Pro Lys Pro Arg  
20 25

<210> 67

<211> 26

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (18)..(18)

<223> PHOSPHORYLATION; tyrosine at position 18 is phosphorylated

<400> 67

Thr Val Pro Pro Pro Val Pro Gln Asp Pro Leu Gly Ser Pro Pro Ala  
1 5 10 15

Leu Tyr Ala Glu Pro Leu Asp Ser Leu Arg  
20 25

<210> 68

<211> 29

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (11)..(11)

<223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 68

Ile Pro Pro Gly Pro Ser Gln Asp Ser Val Tyr Ser Asp Pro Leu Gly  
1 5 10 15

Ser Thr Pro Ala Gly Ala Gly Glu Gly Val His Ser Lys  
20 25

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<210> 69  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (10)..(10)  
 <223> PHOSPHORYLATION; tyrosine at position 10 is phosphorylated

<400> 69

Leu Thr Asp Ser Lys Glu Asp Pro Ile Tyr Asp Glu Pro Glu Gly Leu  
 1 5 10 15

Ala Pro Ala Pro Pro Arg  
 20

<210> 70  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (17)..(17)  
 <223> PHOSPHORYLATION; tyrosine at position 17 is phosphorylated

<400> 70

Leu Lys Glu Glu Gly Tyr Glu Leu Pro Tyr Asn Pro Ala Thr Asp Asp  
 1 5 10 15

Tyr Ala Val Pro Pro Pro Arg  
 20

<210> 71  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (9)..(9)  
 <223> PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

<400> 71

Gly Phe Ser Ser Asp Thr Ala Leu Tyr Ser Gln Val Gln Lys  
 1 5 10

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<210> 72  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 72

Asp Ala Ser Ser Gln Asp Cys Tyr Asp Ile Pro Arg  
 1 5 10

<210> 73  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 73

Thr Gln Gln Gly Leu Tyr Gln Ala Pro Gly Pro Asn Pro Gln Phe Gln  
 1 5 10 15

Ser Pro Pro Ala Lys  
 20

<210> 74  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (17)..(17)  
 <223> PHOSPHORYLATION; tyrosine at position 17 is phosphorylated

<400> 74

Val Gly Gln Gly Tyr Val Tyr Glu Ala Ala Gln Thr Glu Gln Asp Glu  
 1 5 10 15

Tyr Asp Thr Pro Arg  
 20



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<210> 75  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> PHOSPHORYLATION; tyrosine at position 4 is phosphorylated

<400> 75

Glu Glu Thr Tyr Asp Val Pro Pro Ala Phe Ala Lys  
 1 5 10

<210> 76  
 <211> 11  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 76

Glu Tyr Asp Gln Leu Tyr Glu Glu Tyr Thr Arg  
 1 5 10

<210> 77  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 77

Val Thr Ile Ala Asp Asp Tyr Ser Asp Pro Phe Asp Ala Lys  
 1 5 10

<210> 78  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES

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<222> (8)..(8)

<223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 78

Glu Leu Phe Asp Asp Pro Ser Tyr Val Asn Ile Gln Asn Leu Asp Lys  
1 5 10 15

<210> 79

<211> 17

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> PHOSPHORYLATION; tyrosine at position 3 is phosphorylated

<400> 79

Leu Asp Tyr Cys Gly Gly Gly Gly Gly Gly Asp Pro Gly Gly Gly Gln  
1 5 10 15

Arg

<210> 80

<211> 8

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (6)..(6)

<223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 80

Arg Val Pro Cys Ala Tyr Asp Lys  
1 5

<210> 81

<211> 20

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (9)..(9)

<223> PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

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&lt;400&gt; 81

Gly Pro Leu Asn Gly Asp Thr Asp Tyr Phe Gly Gln Gln Phe Asp Gln  
 1 5 10 15

Leu Ser Asn Arg  
 20

&lt;210&gt; 82

&lt;211&gt; 17

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (4)..(4)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 4 is phosphorylated

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (8)..(8)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

&lt;400&gt; 82

Lys Pro Leu Tyr Trp Asp Leu Tyr Gly His Val Gln Gln Gln Leu Leu  
 1 5 10 15

Lys

&lt;210&gt; 83

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (3)..(3)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 3 is phosphorylated

&lt;400&gt; 83

Gly Leu Tyr Asp Leu Pro Gln Glu Pro Arg  
 1 5 10

&lt;210&gt; 84

&lt;211&gt; 23

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

CST-201 CIP.ST25

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<220>  
 <221> MOD\_RES  
 <222> (10)..(10)  
 <223> PHOSPHORYLATION; tyrosine at position 10 is phosphorylated

<220>  
 <221> MOD\_RES  
 <222> (17)..(17)  
 <223> PHOSPHORYLATION; tyrosine at position 17 is phosphorylated

<400> 84

Leu Lys Glu Glu Gly Tyr Glu Leu Pro Tyr Asn Pro Ala Thr Asp Asp  
 1 5 10 15

Tyr Ala Val Pro Pro Pro Arg  
 20

<210> 85  
 <211> 11  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 85

Val Cys Glu Pro Cys Tyr Glu Gln Leu Asn Lys  
 1 5 10

<210> 86  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 86

Gly Glu Pro Glu Ala Leu Tyr Ala Ala Val Thr Lys  
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1 5

10

<210> 87  
<211> 21  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (7)..(7)  
<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<220>  
<221> MOD\_RES  
<222> (17)..(17)  
<223> PHOSPHORYLATION; tyrosine at position 17 is phosphorylated

<400> 87

Val Gly Gln Gly Tyr Val Tyr Glu Ala Ala Gln Thr Glu Gln Asp Glu  
1 5 10 15

Tyr Asp Thr Pro Arg  
20

<210> 88  
<211> 36  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (19)..(19)  
<223> PHOSPHORYLATION; tyrosine at position 19 is phosphorylated

<220>  
<221> MOD\_RES  
<222> (29)..(29)  
<223> PHOSPHORYLATION; tyrosine at position 29 is phosphorylated

<400> 88

His Pro Leu Ile Leu Ala Ala Pro Pro Pro Asp Ser Pro Ala Ala Glu  
1 5 10 15

Asp Val Tyr Asp Val Pro Pro Pro Ala Pro Asp Leu Tyr Asp Val Pro  
20 25 30

Pro Gly Leu Arg  
35

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<210> 89  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (17)..(17)  
 <223> PHOSPHORYLATION; tyrosine at position 17 is phosphorylated

<400> 89

Val Leu Pro Pro Glu Val Ala Asp Gly Ser Val Val Asp Asp Gly Val  
 1 5 10 15

Tyr Ala Val Pro Pro Pro Ala Glu Arg  
 20 25

<210> 90  
 <211> 29  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (14)..(14)  
 <223> PHOSPHORYLATION; tyrosine at position 14 is phosphorylated

<400> 90

Leu Asn Glu Trp Leu Gly Asn Glu Asn Thr Glu Asp Gln Tyr Ser Leu  
 1 5 10 15

Val Glu Asp Asp Glu Asp Leu Pro His His Asp Glu Lys  
 20 25

<210> 91  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 91

Ile Gly Thr Ala Glu Pro Asp Tyr Gly Ala Leu Tyr Glu Gly Arg  
 1 5 10 15

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<210> 92  
 <211> 28  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (21)..(22)  
 <223> PHOSPHORYLATION; tyrosines at positions 21 and 22 are phosphorylated

<400> 92

Met Ala Gly Phe Asp Gly Ser Ala Trp Asp Glu Glu Glu Glu Glu Pro  
 1 5 10 15

Pro Asp His Gln Tyr Tyr Asn Asp Phe Pro Gly Lys  
 20 25

<210> 93  
 <211> 36  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (19)..(19)  
 <223> PHOSPHORYLATION; tyrosine at position 19 is phosphorylated

<400> 93

Ser Val Tyr Leu Gln Glu Phe Gln Asp Lys Gly Asp Ala Glu Asp Gly  
 1 5 10 15

Asp Glu Tyr Asp Asp Pro Phe Ala Gly Pro Ala Asp Thr Ile Ser Leu  
 20 25 30

Ala Ser Glu Arg  
 35

<210> 94  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (2)..(2)  
 <223> PHOSPHORYLATION; tyrosine at position 2 is phosphorylated

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<400> 94

Ile Tyr Gln Phe Thr Ala Ala Ser Pro Lys  
1 5 10

<210> 95

<211> 23

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (9)..(9)

<223> PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

<400> 95

Ser Gln Pro Ile Asp Asp Glu Ile Tyr Glu Glu Leu Pro Glu Glu Glu  
1 5 10 15

Glu Asp Thr Ala Ser Val Lys  
20

<210> 96

<211> 13

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (11)..(11)

<223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 96

Leu Val Asn Glu Ala Pro Val Tyr Ser Val Tyr Ser Lys  
1 5 10

<210> 97

<211> 8

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (3)..(3)

<223> PHOSPHORYLATION; tyrosine at position 3 is phosphorylated

<400> 97

Val Ile Tyr Asp Phe Ile Glu Lys



1 5

<210> 98  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> PHOSPHORYLATION; tyrosine at position 4 is phosphorylated

&lt;400&gt; 98

Lys Pro Thr Tyr Asp Pro Val Ser Glu Asp Gln Asp Pro Leu Ser Ser  
 1 5 10 15

Asp Phe Lys

<210> 99  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> MOD\_RES  
 <222> (16)..(16)  
 <223> PHOSPHORYLATION; tyrosine at position 16 is phosphorylated

&lt;400&gt; 99

His Gln Glu Leu Gln Ala Met Gln Met Glu Leu Gln Ser Pro Glu Tyr  
 1 5 10 15

Lys

<210> 100  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<220>  
 <221> MOD\_RES  
 <222> (12)..(12)

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<223> PHOSPHORYLATION; tyrosine at position 12 is phosphorylated

<400> 100

Thr Ser Thr Ile Met Thr Asp Tyr Asn Pro Asn Tyr Cys Phe Ala Gly  
1 5 10 15

Lys

<210> 101

<211> 30

<212> PRT

<213> Homo sapiens

<220>

<221> MOD RES

<222> (11)..(11)

<223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 101

Gly Leu Gly His Gly Ala Phe Gly Glu Val Tyr Glu Gly Gln Val Ser  
1 5 10 15

Gly Met Pro Asn Asp Pro Ser Pro Leu Gln Val Ala Val Lys  
20 25 30

<210> 102

<211> 18

<212> PRT

<213> Homo sapiens

<220>

<221> MOD RES

<222> (11)..(11)

<223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 102

Asn Lys Pro Thr Ser Leu Trp Asn Pro Thr Tyr Gly Ser Trp Phe Thr  
1 5 10 15

Glu Lys

<210> 103

<211> 35

<212> PRT

<213> Homo sapiens

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<220>  
 <221> MOD\_RES  
 <222> (9)..(9)  
 <223> PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

<400> 103

His Phe Pro Cys Gly Asn Val Asn Tyr Gly Tyr Gln Gln Gln Gly Leu  
 1 5 10 15

Pro Leu Glu Ala Ala Thr Ala Pro Gly Ala Gly His Tyr Glu Asp Thr  
 20 25 30

Ile Leu Lys  
 35

<210> 104  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (10)..(10)  
 <223> PHOSPHORYLATION; tyrosine at position 10 is phosphorylated

<400> 104

Asp Leu Asn Ser Leu Ile Ser Ser Asp Tyr Glu Leu Leu Ser Asp Pro  
 1 5 10 15

Thr Pro Gly Ala Leu Ala Pro Arg  
 20

<210> 105  
 <211> 11  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 105

Ile Gly Glu Gly Thr Tyr Gly Val Val Tyr Lys  
 1 5 10

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<210> 106  
 <211> 11  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (10)..(10)  
 <223> PHOSPHORYLATION; tyrosine at position 10 is phosphorylated

<400> 106

Ile Gly Glu Gly Thr Tyr Gly Val Val Tyr Lys  
 1 5 10

<210> 107  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (11)..(11)  
 <223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 107

Val Tyr Asn Asp Gly Tyr Asp Asp Asp Asn Tyr Asp Tyr Ile Val Lys  
 1 5 10 15

<210> 108  
 <211> 8  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> PHOSPHORYLATION; tyrosine at position 4 is phosphorylated

<400> 108

Ile Tyr Gln Tyr Ile Gln Ser Arg  
 1 5

<210> 109  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (1)..(1)

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<223> PHOSPHORYLATION; tyrosine at position 1 is phosphorylated

<400> 109

Tyr Glu Val Leu Lys Ile Ile Gly Lys Gly Ser Phe Gly Gln Val Ala  
1 5 10 15

Arg

<210> 110

<211> 19

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (15)..(15)

<223> PHOSPHORYLATION; tyrosine at position 15 is phosphorylated

<400> 110

Val Ala Asp Pro Asp His Asp His Thr Gly Phe Leu Thr Glu Tyr Val  
1 5 10 15

Ala Thr Arg

<210> 111

<211> 11

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (7)..(7)

<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 111

Gly Glu Pro Asn Val Ser Tyr Ile Cys Ser Arg  
1 5 10

<210> 112

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (6)..(6)

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<223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 112

Ala Val Cys Ser Thr Tyr Leu Gln Ser Arg  
1 5 10

<210> 113

<211> 13

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (9)..(9)

<223> PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

<400> 113

His Thr Asp Asp Glu Met Thr Gly Tyr Val Ala Thr Arg  
1 5 10

<210> 114

<211> 22

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (18)..(18)

<223> PHOSPHORYLATION; tyrosine at position 18 is phosphorylated

<400> 114

Leu Cys Asp Phe Gly Ser Ala Ser His Val Ala Asp Asn Asp Ile Thr  
1 5 10 15

Pro Tyr Leu Val Ser Arg  
20

<210> 115

<211> 18

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (4)..(4)

<223> PHOSPHORYLATION; tyrosine at position 4 is phosphorylated

<400> 115

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Ile Ser Thr Tyr Gly Leu Pro Ala Gly Gly Ile Gln Pro His Pro Gln  
1 5 10 15

Thr Lys

<210> 116  
<211> 15  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (6)..(6)  
<223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 116

Gly Gln Glu Gly Glu Tyr Ala Val Pro Phe Asp Ala Val Ala Arg  
1 5 10 15

<210> 117  
<211> 11  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (6)..(6)  
<223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 117

Val Cys Glu Pro Cys Tyr Glu Gln Leu Asn Arg  
1 5 10

<210> 118  
<211> 8  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> PHOSPHORYLATION; tyrosine at position 3 is phosphorylated

<400> 118

Leu Glu Tyr Tyr Glu Asn Glu Lys  
1 5

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<210> 119  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 119

Val Asp Pro Asn Gly Tyr Met Met Met Ser Pro Ser Gly Gly Cys Ser  
 1 5 10 15

Pro Asp Ile Gly Gly Gly Pro Ser Ser Ser Ser Ser Ser Asn Ala  
 20 25 30

Val Pro Ser Gly Thr Ser Tyr Gly Lys  
 35 40

<210> 120  
 <211> 13  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 120

Arg Glu Glu Pro Glu Ala Leu Tyr Ala Ala Val Asn Lys  
 1 5 10

<210> 121  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (11)..(11)  
 <223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 121

Ile Lys Pro Ser Ser Ser Ala Asn Ala Ile Tyr Ser Leu Ala Ala Arg  
 1 5 10 15



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<210> 122  
 <211> 28  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (21)..(22)  
 <223> PHOSPHORYLATION; tyrosines at positions 21 and 22 are phosphorylated

<400> 122

Met Ala Gly Phe Asp Gly Ser Ala Trp Asp Glu Glu Glu Glu Glu Pro  
 1 5 10 15

Pro Asp His Gln Tyr Tyr Asn Asp Phe Pro Gly Lys  
 20 25

<210> 123  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 123

Glu Leu Phe Asp Asp Pro Ser Tyr Val Asn Val Gln Asn Leu Asp Lys  
 1 5 10 15

<210> 124  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 124

Ile Gln Asn Thr Gly Asp Tyr Tyr Asp Leu Tyr Gly Gly Glu Lys  
 1 5 10 15

<210> 125  
 <211> 26

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<212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (7)..(7)  
 <223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 125

Ser Cys Gln Asn Leu Gly Tyr Thr Ala Ala Ser Pro Gln Ala Pro Glu  
 1 5 10 15

Ala Ala Ser Ser Thr Gly Asn Ala Glu Arg  
 20 25

<210> 126  
 <211> 13  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 126

Ser Gln Asp Pro Asn Pro Gln Tyr Ser Pro Ile Ile Lys  
 1 5 10

<210> 127  
 <211> 29  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (11)..(11)  
 <223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 127

Gly Ser Pro Gly Glu Ala Pro Ser Asn Ile Tyr Val Glu Val Glu Asp  
 1 5 10 15

Glu Gly Leu Pro Ala Thr Leu Gly His Pro Val Leu Arg  
 20 25

<210> 128  
 <211> 16

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<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (3)..(3)  
<223> PHOSPHORYLATION; tyrosine at position 3 is phosphorylated

<400> 128

Leu Ile Tyr Asp Phe Ile Glu Asp Gln Gly Gly Leu Glu Ala Val Arg  
1 5 10 15

<210> 129  
<211> 13  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (10)..(10)  
<223> PHOSPHORYLATION; tyrosine at position 10 is phosphorylated

<400> 129

Val Leu Glu Asp Asp Pro Glu Ala Ala Tyr Thr Thr Arg  
1 5 10

<210> 130  
<211> 13  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (7)..(7)  
<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 130

Gln Glu Asp Gly Gly Val Tyr Ser Ser Ser Gly Leu Lys  
1 5 10

<210> 131  
<211> 12  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (8)..(8)  
<223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

&lt;400&gt; 131

Asn Leu Asp Asn Gly Gly Phe Tyr Ile Ser Pro Arg  
 1 5 10

&lt;210&gt; 132

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (7)..(7)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

&lt;400&gt; 132

Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg  
 1 5 10

&lt;210&gt; 133

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (14)..(14)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 14 is phosphorylated

&lt;400&gt; 133

Ser Val Leu Glu Asp Phe Phe Thr Ala Thr Glu Gly Gln Tyr Gln Pro  
 1 5 10 15

Gln Pro

&lt;210&gt; 134

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (9)..(9)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

&lt;400&gt; 134

Ile Asp Thr Leu Asn Ser Asp Gly Tyr Thr Pro Glu Pro Ala Arg

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1                      5                      10                      15

<210> 135  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (9)..(9)  
 <223> PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

<220>  
 <221> MOD\_RES  
 <222> (13)..(13)  
 <223> PHOSPHORYLATION; tyrosine at position 13 is phosphorylated

<400> 135

Pro Met Pro Met Asp Thr Ser Val Tyr Glu Ser Pro Tyr Ser Asp Pro  
 1                      5                      10                      15

Glu Glu Leu Lys  
 20

<210> 136  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(9)  
 <223> PHOSPHORYLATION; tyrosines at positions 8 and 9 are phosphorylated

<400> 136

Ala Leu Gly Ala Asp Asp Ser Tyr Tyr Thr Ala Arg  
 1                      5                      10

<210> 137  
 <211> 11  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

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&lt;400&gt; 137

Ile Gly Glu Gly Thr Tyr Gly Val Val Tyr Lys  
 1 5 10

&lt;210&gt; 138

&lt;211&gt; 18

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (5)..(5)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 5 is phosphorylated

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (16)..(16)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 16 is phosphorylated

&lt;400&gt; 138

Ala Asp Gln Gln Tyr Glu Cys Val Ala Glu Ile Gly Glu Gly Ala Tyr  
 1 5 10 15

Gly Lys

&lt;210&gt; 139

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (7)..(7)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

&lt;400&gt; 139

Gly Glu Pro Asn Val Ser Tyr Ile Cys Ser Arg  
 1 5 10

&lt;210&gt; 140

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; MOD\_RES

&lt;222&gt; (8)..(8)

&lt;223&gt; PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

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<220>  
 <221> MOD\_RES  
 <222> (15)..(15)  
 <223> PHOSPHORYLATION; tyrosine at position 15 is phosphorylated

<400> 140

Gln Glu Gly Ser Ile Glu Val Tyr Glu Asp Ala Gly Ser His Tyr Leu  
 1 5 10 15

Cys Leu Leu Lys  
 20

<210> 141  
 <211> 13  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (9)..(9)  
 <223> PHOSPHORYLATION; tyrosine at position 9 is phosphorylated

<400> 141

His Thr Asp Asp Glu Met Thr Gly Tyr Val Ala Thr Arg  
 1 5 10

<210> 142  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (18)..(18)  
 <223> PHOSPHORYLATION; tyrosine at position 18 is phosphorylated

<400> 142

Leu Cys Asp Phe Gly Ser Ala Ser His Val Ala Asp Asn Asp Ile Thr  
 1 5 10 15

Pro Tyr Leu Val Ser Arg  
 20

<210> 143  
 <211> 20  
 <212> PRT

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<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (14)..(14)

<223> PHOSPHORYLATION; tyrosine at position 14 is phosphorylated

<400> 143

Thr Leu Glu Pro Val Lys Pro Pro Thr Val Pro Asn Asp Tyr Met Thr  
1 5 10 15

Ser Pro Ala Arg  
20

<210> 144

<211> 12

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (7)..(7)

<223> PHOSPHORYLATION; tyrosine at position 7 is phosphorylated

<400> 144

Gly Met Lys Asp Asp Asp Tyr Asp Asp Gln Leu Cys  
1 5 10

<210> 145

<211> 27

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (6)..(6)

<223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 145

Ser Ala Thr Leu Leu Tyr Asp Gln Pro Leu Gln Val Phe Thr Gly Ser  
1 5 10 15

Ser Ser Ser Ser Asp Leu Ile Ser Gly Thr Lys  
20 25

<210> 146

<211> 29

<212> PRT



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<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (13)..(13)

<223> PHOSPHORYLATION; tyrosine at position 13 is phosphorylated

<220>

<221> MOD\_RES

<222> (22)..(22)

<223> PHOSPHORYLATION; tyrosine at position 22 is phosphorylated

<400> 146

Gly	Pro	Thr	Ser	Gly	Pro	Gln	Ser	Ala	Pro	Gln	Ile	Tyr	Gly	Pro	Pro
1				5					10					15	

Gln	Tyr	Asn	Ile	Gln	Tyr	Ser	Ser	Ser	Ala	Ala	Val	Lys
			20					25				

<210> 147

<211> 12

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (8)..(8)

<223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<220>

<221> MOD\_RES

<222> (11)..(11)

<223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 147

Ala	Gln	Ile	Pro	Glu	Gly	Asp	Tyr	Leu	Ser	Tyr	Arg
1				5					10		

<210> 148

<211> 13

<212> PRT

<213> Homo sapiens

<220>

<221> MOD\_RES

<222> (8)..(8)

<223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 148

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Arg Glu Glu Pro Glu Ala Leu Tyr Ala Ala Val Asn Lys  
1 5 10

<210> 149  
<211> 28  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (17)..(17)  
<223> PHOSPHORYLATION; tyrosine at position 17 is phosphorylated

<400> 149

Glu Thr Asp Thr Ser Ala Leu Ala Ala Gly Ser Ser Gln Glu Val Thr  
1 5 10 15

Tyr Ala Gln Leu Asp His Trp Ala Leu Thr Gln Arg  
20 25

<210> 150  
<211> 11  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (2)..(2)  
<223> PHOSPHORYLATION; tyrosine at position 2 is phosphorylated

<400> 150

Leu Tyr Asp Leu Asn Met Pro Ala Tyr Val Lys  
1 5 10

<210> 151  
<211> 27  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (11)..(11)  
<223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 151

Ile Ala Pro Cys Pro Ser Gln Asp Ser Leu Tyr Ser Asp Pro Leu Asp  
1 5 10 15

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Ser Thr Ser Ala Gln Ala Gly Glu Gly Val Gln  
20 25

<210> 152  
<211> 24  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (5)..(5)  
<223> PHOSPHORYLATION; tyrosine at position 5 is phosphorylated

<220>  
<221> MOD\_RES  
<222> (20)..(20)  
<223> PHOSPHORYLATION; tyrosine at position 20 is phosphorylated

<400> 152

Glu Asp Pro Ile Tyr Asp Glu Pro Glu Gly Leu Ala Pro Val Pro Pro  
1 5 10 15

Gln Gly Leu Tyr Asp Leu Pro Arg  
20

<210> 153  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MOD\_RES  
<222> (6)..(6)  
<223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<220>  
<221> MOD\_RES  
<222> (17)..(17)  
<223> PHOSPHORYLATION; tyrosine at position 17 is phosphorylated

<400> 153

Val Lys Glu Glu Gly Tyr Glu Leu Pro Tyr Asn Pro Ala Thr Asp Asp  
1 5 10 15

Tyr Ala Val Pro Pro Pro Arg  
20

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<210> 154  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (4)..(4)  
 <223> PHOSPHORYLATION; tyrosine at position 4 is phosphorylated

<400> 154

Glu Asn Asp Tyr Glu Ser Ile Ser Asp Leu Gln Gln Gly Arg  
 1 5 10

<210> 155  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<220>  
 <221> MOD\_RES  
 <222> (12)..(12)  
 <223> PHOSPHORYLATION; tyrosine at position 12 is phosphorylated

<400> 155

Ile Gly Thr Ala Glu Pro Asp Tyr Gly Ala Leu Tyr Glu Gly Arg  
 1 5 10 15

<210> 156  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (5)..(5)  
 <223> PHOSPHORYLATION; tyrosine at position 5 is phosphorylated

<400> 156

Asn Pro Gly Phe Tyr Val Glu Ala Asn Pro Met Pro Thr Phe Lys  
 1 5 10 15

<210> 157  
 <211> 10

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<212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (6)..(6)  
 <223> PHOSPHORYLATION; tyrosine at position 6 is phosphorylated

<400> 157

Asp Ile Asn Ser Leu Tyr Asp Val Ser Arg  
 1 5 10

<210> 158  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (12)..(12)  
 <223> PHOSPHORYLATION; tyrosine at position 12 is phosphorylated

<400> 158

Arg Gln Glu Glu Leu Asn Asn Gln Leu Phe Leu Tyr Asp Thr His Gln  
 1 5 10 15

Asn Leu Arg

<210> 159  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 159

Glu Leu Phe Asp Asp Pro Ser Tyr Val Asn Val Gln Asn Leu Asp Lys  
 1 5 10 15

<210> 160  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<220>

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<221> MOD\_RES  
 <222> (11)..(11)  
 <223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<220>  
 <221> MOD\_RES  
 <222> (16)..(16)  
 <223> PHOSPHORYLATION; tyrosine at position 16 is phosphorylated

<400> 160

Ser Gly Glu Ser Val Glu Glu Val Pro Leu Tyr Gly Asn Leu His Tyr  
 1 5 10 15

Leu Gln Thr Gly Arg  
 20

<210> 161  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (11)..(11)  
 <223> PHOSPHORYLATION; tyrosine at position 11 is phosphorylated

<400> 161

Ser Gln Ala Ser Gly Pro Glu Pro Glu Leu Tyr Ala Ser Val Cys Ala  
 1 5 10 15

Gln Thr Arg

<210> 162  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (8)..(8)  
 <223> PHOSPHORYLATION; tyrosine at position 8 is phosphorylated

<400> 162

Ala Ser Phe Pro Asp Gln Ala Tyr Ala Asn Ser Gln Pro Ala Ala Ser  
 1 5 10 15

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<210> 163  
 <211> 16  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (3)..(3)  
 <223> PHOSPHORYLATION; tyrosine at position 3 is phosphorylated

<400> 163

Leu	Ile	Tyr	Asp	Phe	Ile	Glu	Asp	Gln	Gly	Gly	Leu	Glu	Ala	Val	Arg
1				5					10					15	